# AMENDMENTS TO THE CLAIMS



This listing of claims will replace all prior versions and listings of claims in the application.

1. (Previously presented) A compound of Formula (WHH)

$$0 = \begin{bmatrix} X & Y^2 - I \\ Y & Z \end{bmatrix}$$

$$R^1 = X - X^1$$
(WHH)

wherein

R<sup>1</sup> is H, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>haloalkyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>thioalkyl, cyano, halo, C<sub>3-7</sub>cycloalkyl, -C<sub>1-6</sub>alkylene-C<sub>3-7</sub>cycloalkyl, C<sub>2-6</sub>alkenyl or C<sub>3-6</sub>alkynyl; R<sup>8</sup> is O-C<sub>1-4</sub>alkyl, -N(CH<sub>3</sub>)(OCH<sub>3</sub>);

X is C;

Y is C;

 $X^{1}$  is N:

 $Y^1$  is N:

Y<sup>2</sup> is CH<sub>2</sub>;

J is CH2 or a bond;

Z<sup>1</sup> is CH<sub>2</sub> or C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of  $C_{1-4}$ alkyl,  $C_{1-4}$ alkoxy,  $C_{1-6}$ thioalkyl,  $C_{1-4}$ haloalkyl, halogen,  $N(C_{1}-C_{4}$ alkyl)<sub>2</sub> and CN.

2. (Previously presented) A process for preparing a compound of Formula (WHH)

$$0 \xrightarrow{\mathbb{R}^{8}} \mathbb{Y}^{2} \xrightarrow{\mathbb{Z}^{1}} \mathbb{Z}^{1} \qquad (WHH)$$

#### wherein

 $R^1$  is H,  $C_{1-6}$ alkyl,  $C_{1-6}$ haloalkyl,  $C_{1-6}$ alkoxy,  $C_{1-6}$ thioalkyl, cyano, halo,  $C_{3-7}$ cycloalkyl,  $-C_{1-6}$ alkylene- $C_{3-7}$ cycloalkyl,  $C_{2-6}$ alkenyl or  $C_{3-6}$  alkynyl;  $R^8$  is  $O-C_{1-4}$ alkyl,  $-N(CH_3)(OCH_3)$ ;

X is C;

Y is C;

 $X^1$  is N:

Y1 is N;

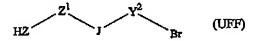
Y<sup>2</sup> is CH<sub>2</sub>;

J is CH2 or a bond;

Z1 is CH2 or C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, C<sub>1-6</sub> thioalkyl, C<sub>1-4</sub>haloalkyl, halogen, N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub> and CN;

comprising reacting a compound of Formula (UFF)



wherein

Z, Z<sup>1</sup>, J and Y<sup>2</sup> are defined as for Formula (WHH);

with a compound of Formula (UFF')

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wherein

 $R^1$ ,  $R^8$ , X, Y,  $X^1$  and  $Y^1$  are defined as for Formula (WHH); in the presence of a suitable base and polar aprotic solvent to yield a compound of Formula (VGG)

wherein

 $R^1$ ,  $R^8$ , X, Y,  $X^1$ ,  $Y^1$ ,  $Y^2$ , J,  $Z^1$  and Z are defined as for Formula (WHH); and reacting said compound of Formula (VGG) with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

#### 3. (Currently Amended) A compound of Formula (Z')

wherein

R<sup>1</sup> is H, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>haloalkyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>thioalkyl, cyano, halo, C<sub>3-7</sub>cycloalkyl, -C<sub>1-6</sub>alkylene-C<sub>3-7</sub>cycloalkyl, C<sub>2-6</sub>alkenyl or C<sub>3-6</sub> alkynyl; R<sup>8</sup> is O-C<sub>1-4</sub>alkyl, -N(CH<sub>3</sub>)(OCH<sub>3</sub>);

X is C:

Y is C;

X1 is N:

Y1 is N;

Y<sup>2</sup> is CH or CR<sup>5</sup>;

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R<sup>5</sup> is selected from the group consisting of -CN, -C<sub>1-4</sub>alk(en)ylene-CN, halo, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, C<sub>3-6</sub>alkynyl, C<sub>1-6</sub> haloalkyl, aryl, -C<sub>1-4</sub>alk(en)ylene-aryl, -C<sub>1-4</sub>alk(en)ylene-heterocyclo, heterocyclo, -C<sub>1-4</sub>alk(en)ylene- amino, -C<sub>1-4</sub>alkylene-amino-C<sub>1-4</sub>alkyl, aryl-amino, -amino-(C<sub>1-6</sub>alk(en)yl)<sub>1-2</sub>, -amino-aryl, -amino-heterocyclo, C<sub>1-6</sub>alkoxy, -O-aryl and -O-heterocyclo;

 $Z^1$  is C(O); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, C<sub>1-6</sub> thioalkyl, C<sub>1-4</sub>haloalkyl, halogen, N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub> and CN.

## 4. (Currently Amended) A process for preparing a compound of Formula (Z')

$$\begin{array}{c|c}
R^8 & Y^2 \\
\hline
O & X & X^1
\end{array}$$

$$0 \xrightarrow{\mathbb{R}^{8}} \mathbb{Z}^{1}$$

$$\mathbb{Z}^{1}$$

$$\mathbb{Z}^{1}$$

$$\mathbb{Z}^{1}$$

wherein

R<sup>1</sup> is H, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>haloalkyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>thioalkyl, cyano, halo, C<sub>3-7</sub>cycloalkyl, -C<sub>1-6</sub>alkylene C<sub>3-7</sub>cycloalkyl, C<sub>2-6</sub>alkenyl or C<sub>3-6</sub> alkynyl; R<sup>8</sup> is O-C<sub>1-4</sub>alkyl, -N(CH<sub>3</sub>)(OCH<sub>3</sub>);

X is C;

Y is C;

X1 is N;

Y1 is N:

Y<sup>2</sup> is CH or CR<sup>5</sup>;

R<sup>5</sup> is selected from the group consisting of -CN, -C<sub>1-4</sub>alk(en)ylene-CN, halo, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, C<sub>3-6</sub>alkynyl, C<sub>1-6</sub>haloalkyl, aryl, -C<sub>1-4</sub>alk(en)ylene-aryl, -C<sub>1-4</sub>alk(en)ylene-heterocyclo, heterocyclo, -C<sub>1-4</sub>alk(en)ylene- amino, -C<sub>1-4</sub>alkylene-amino-C<sub>1-4</sub>alkyl, aryl-amino, -amino-(C<sub>1-6</sub>alk(en)yl)<sub>1-2</sub>, -amino-aryl, -amino-heterocyclo, C<sub>1-6</sub>alkoxy, -O-aryl and -O-heterocyclo;

 $Z^1$  is C(0); and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of C<sub>1-4</sub>alkyl, C<sub>1-4</sub>alkoxy, C<sub>1-6</sub> thioalkyl, C<sub>1-4</sub>haloalkyl, halogen, N(C<sub>1</sub>-C<sub>4</sub>alkyl)<sub>2</sub> and CN;

comprising reacting a compound of Formula (X')

$$^{HZ}$$
  $_{Z^{1}}$   $^{Y^{2}}$   $_{Br}$   $^{(X')}$ 

wherein

Z,  $Z^1$  and  $Y^2$  are defined as for Formula ( $Z^2$ );

with a compound of Formula (UFF')

$$O = X - X^{1}$$

$$X - X^{1}$$

$$X - X^{1}$$

$$X - X^{1}$$

wherein

 $R^1$ ,  $R^8$ , X, Y,  $X^1$  and  $Y^1$  are defined as for Formula (Z');

in the presence of a suitable base and polar aprotic solvent to yield a compound of Formula

$$Y^2$$
 $ZH$ 
 $Y^2$ 
 $Br$ 
 $Y'$ 
 $Y'$ 

wherein

 $R^1$ ,  $R^8$ , X, Y,  $X^1$ ,  $Y^1$ ,  $Y^2$ ,  $Z^1$  and Z are defined as for Formula ( $Z^*$ ); and reacting said compound of Formula ( $Y^*$ ) with a high-boiling point polar aprotic solvent and a suitable silver salt under suitably high temperature.

#### 5. (Previously Presented) A compound of Formula (AA')

$$0 = \begin{bmatrix} R^8 \\ Y \end{bmatrix} \begin{bmatrix} Y^2 \\ Z^1 \\ Z \end{bmatrix}$$
 (AA')

wherein

 $R^1$  is H,  $C_{1-6}$ alkyl,  $C_{1-6}$ haloalkyl,  $C_{1-6}$ alkoxy,  $C_{1-6}$ thioalkyl, cyano, halo,  $C_{3-7}$ cycloalkyl,  $-C_{1-6}$ alkylene- $C_{3-7}$ cycloalkyl,  $C_{2-6}$ alkenyl or  $C_{3-6}$ alkynyl;  $R^8$  is  $O-C_{1-4}$ alkyl,  $-N(CH_3)(OCH_3)$ ;

X is C;

Y is C:

XI is N;

Y1 is N:

Y<sup>2</sup> is CH or CR<sup>5</sup>:

R<sup>5</sup> is selected from the group consisting of -CN, -C<sub>1-4</sub>alk(en)ylene-CN, halo, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, C<sub>3-6</sub>alkynyl, C<sub>1-6</sub>haloalkyl, aryl, -C<sub>1-4</sub>alk(en)ylene-aryl, -C<sub>1-4</sub>alk(en)ylene-heterocyclo, heterocyclo, -C<sub>1-4</sub>alk(en)ylene- amino, -C<sub>1-4</sub>alkylene-amino-C<sub>1-4</sub>alkyl, aryl-

amino, -amino-(C<sub>1-6</sub> alk(en)yl)<sub>1-2</sub>, -amino-aryl, -amino-heterocyclo, C<sub>1-6</sub>alkoxy, -O-aryl and -O-heterocyclo;

 $\mathbb{Z}^1$  is  $\mathbb{CR}^7$ :

wherein R7 is chloro or bromo; and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of  $C_{1-4}$ alkyl,  $C_{1-4}$ alkoxy,  $C_{1-6}$ thioalkyl,  $C_{1-4}$  haloalkyl, halogen,  $N(C_1-C_4$ alkyl)<sub>2</sub> and CN.

### 6. (Currently Amended) A process for preparing a compound of Formula (AA')

$$0 = \begin{bmatrix} X & Y^{2} & Z^{1} \\ Y & Z & Z^{1} \\ X & X^{1} & Z \end{bmatrix}$$
 (AA')

wherein

R<sup>1</sup> is H, C<sub>1-6</sub>alkyl, C<sub>1-6</sub>haloalkyl, C<sub>1-6</sub>alkoxy, C<sub>1-6</sub>thioalkyl, cyano, halo, C<sub>3-7</sub>cycloalkyl, -C<sub>1-6</sub>alkylene-C<sub>3-7</sub>cycloalkyl, C<sub>2-6</sub>alkenyl or C<sub>3-6</sub> alkynyl; R<sup>8</sup> is O-C<sub>1-4</sub>alkyl, -N(CH<sub>3</sub>)(OCH<sub>3</sub>);

X is C;

Y is C:

 $X^1$  is N:

Y1 is N:

Y<sup>2</sup> is CH or CR<sup>5</sup>:

R<sup>5</sup> is selected from the group consisting of -CN, -C<sub>1-4</sub>alk(en)ylene-CN, halo, C<sub>1-6</sub>alkyl, C<sub>2-6</sub>alkenyl, C<sub>3-6</sub>alkynyl, C<sub>1-6</sub>haloalkyl, aryl, -C<sub>1-4</sub>alk(en)ylene-aryl, -C<sub>1-4</sub>alk(en)ylene-heterocyclo, heterocyclo, C<sub>1-4</sub>alk(en)ylene-amino, -C<sub>1-4</sub>alkylene-amino-C<sub>1-4</sub>alkyl, aryl-amino, -amino-(C<sub>1-6</sub>alk(en)yl)<sub>1-2</sub>, -amino-aryl, -amino-heterocyclo, C<sub>1-6</sub>alkoxy, -O-aryl and -O-heterocyclo;

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 $Z^1$  is  $CR^7$ :

wherein R7 is chloro or bromo; and

Z is N-V, wherein V is phenyl, 2-pyridyl or 3-pyridyl substituted with two to three of the same or different substituents selected from the group consisting of  $C_{1-4}$ alkyl,  $C_{1-4}$ alkoxy,  $C_{1-6}$  thioalkyl,  $C_{1-4}$ haloalkyl, halogen,  $N(C_1-C_4$ alkyl)<sub>2</sub> and CN;

comprising reacting a compound of Formula (Z')

wherein

 $R^1$ ,  $R^8$ , X, Y,  $X^1$ ,  $Y^2$ , and Z are defined as for Formula (AA'); and  $Z^1$  is C(O);

with phosphoryl trichloride or phosphoryl tribromide, neat or with a suitable solvent and without a base or with a suitable base.